

# 6GT5

## Beam Power Tube

### NOVAR TYPE

For TV Horizontal-Deflection-Amplifier Applications

#### GENERAL DATA

##### Electrical:

###### Heater Characteristics and Ratings:

Voltage (AC or DC) . . . . . 6.3 ± 0.6 volts

Current at heater volts = 6.3 . . . . . 1.200 amp

###### Peak heater-cathode voltage:

Heater negative with  
respect to cathode . . . . . 200 max. volts

Heater positive with  
respect to cathode . . . . . 200<sup>a</sup> max. volts

###### Direct Interelectrode Capacitances

(Approx.):<sup>b</sup>

Grid No.1 to plate . . . . . 0.26 pf

Grid No.1 to cathode & grid No.3,  
grid No.2, and heater . . . . . 15.0 pf

Plate to cathode & grid No.3,  
grid No.2, and heater . . . . . 6.5 pf

##### Characteristics, Class A<sub>1</sub> Amplifier:

		Triode Connec- tion <sup>c</sup>		
Plate Voltage . . . . .	60	250	150	volts
Grid-No.2 Voltage . . . . .	150	150	150	volts
Grid-No.1 Voltage . . . . .	0	-22.5	-22.5	volts
Amplification Factor . . . . .	-	-	4.4	
Plate Resistance (Approx.) . . . . .	-	15000	-	ohms
Transconductance . . . . .	-	7100	-	μmhos
Plate Current . . . . .	390 <sup>d</sup>	70	-	ma
Grid-No.2 Current . . . . .	32 <sup>d</sup>	2.1	-	ma
Grid-No.1 Voltage (Approx.) for plate ma. = 0.1 . . . . .	-	-42	-	volts

##### Mechanical:

Operating Position . . . . . Any

Type of Cathode . . . . . Coated Unipotential

Maximum Overall Length . . . . . 3.410"

Maximum Seated Length . . . . . 3.030"

Length, Base Seat to Bulb Top (Excluding tip) . . 2.510" to 2.690"

Diameter . . . . . 1.438" to 1.562"

Bulb . . . . . T12

Socket . . . . . Cinch Mfg. Co. No.149 19 00 033,

Industrial Electronic Hardware Co.

No.50-0968-SL1, or equivalent

Base . . . . . Large-Button Novar 9-Pin (JEDEC No.E9-76)

← Indicates a change.



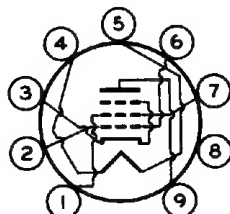
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Harrison, N. J.

DATA 1  
6-63

# 6GT5

Basing Designation for BOTTOM VIEW. . . . . 9NZ

Pin 1-Grid No.2  
Pin 2-Grid No.1  
Pin 3-Cathode,  
Grid No.3  
Pin 4-Heater



Pin 5-Heater  
Pin 6-Grid No.1  
Pin 7-Grid No.2  
Pin 8-Do Not Use  
Pin 9-Plate

## HORIZONTAL-DEFLECTION AMPLIFIER

### Maximum Ratings, Design-Maximum Values:

*For operation in a 525-line, 30-frame system<sup>e</sup>*

DC PLATE-SUPPLY VOLTAGE . . . . .	770 max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE <sup>f</sup> . . . . .	6500 max.	volts
PEAK NEGATIVE-PULSE PLATE VOLTAGE . . . . .	1500 max.	volts
DC GRID-No.2 (SCREEN-GRID) VOLTAGE . . . . .	220 max.	volts
DC GRID-No.1 (CONTROL-GRID) VOLTAGE . . . . .	-55 max.	volts
PEAK NEGATIVE-PULSE GRID-No.1 VOLTAGE . . . . .	330 max.	volts
CATHODE CURRENT:		
Peak. . . . .	550 max.	ma
Average . . . . .	175 max.	ma
GRID-No.2 INPUT . . . . .	3.5 max.	watts
PLATE DISSIPATION <sup>g</sup> . . . . .	17.5 max.	watts
BULB TEMPERATURE (At hottest point on bulb surface). . . . .	240 max.	°C

### Maximum Circuit Values:

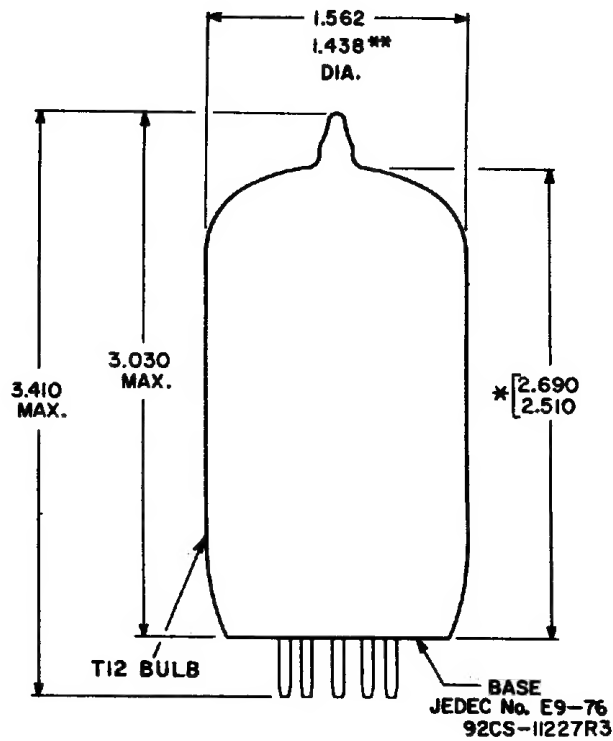
Grid-No.1-Circuit Resistance:

For grid-resistor-bias operation. . . . . 1 max. megohm

- <sup>a</sup> The dc component must not exceed 100 volts.
- <sup>b</sup> Without external shield.
- <sup>c</sup> With grid No.2 connected to plate.
- <sup>d</sup> This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.
- <sup>e</sup> As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.
- <sup>f</sup> This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.
- <sup>g</sup> An adequate bias resistor or other means is required to protect the tube in the absence of excitation.



# 6GT5



## ALL DIMENSIONS IN INCHES

\*\* APPLIES IN ZONE STARTING 0.375" FROM BASE SEAT.

\* MEASURED FROM BASE SEAT TO BULB-TOP LINE AS DETERMINED BY A RING GAUGE OF 0.600" INSIDE DIAMETER.

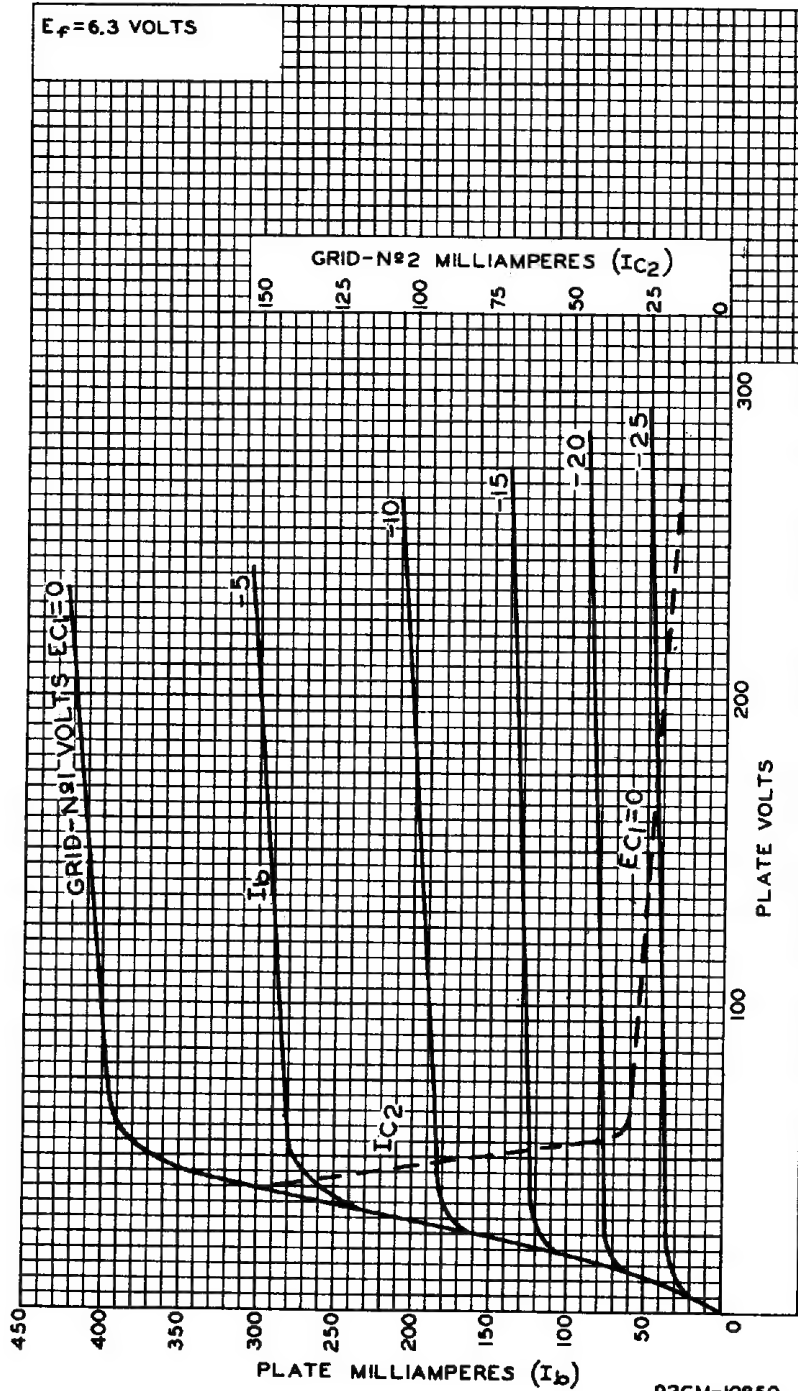


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DATA 2  
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# 6GT5

## AVERAGE CHARACTERISTICS



92CM-10859

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